

## REMARKS

The present invention relates to solar modules comprising at least one solar cell, a front side composed of a transparent polyurethane and a rear side and to a process for the production of such solar modules.

Applicants confirm their election to prosecute Claims 1-8 directed to the solar modules in response to the Examiner's requirement under 35 U.S.C. § 121. Claims 9-11 will be cancelled upon receipt of a notice that Claims 1-8 are allowable.

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Vaverka et al (U.S. Patent 5,667,595). Applicants respectfully traverse this rejection.

Vaverka et al discloses solar modules containing a front **glass** plate, a rear support plate and solar cells placed between these plates. The hollow space between the plates is filled with a cast polyether-polyurethane resin.

Applicants' claimed invention requires a front "side" composed of transparent polyurethane. "Side" is defined in Webster's New Collegiate Dictionary at page 1077 (copy enclosed) as "a surface forming a border or face of an object" or "an outer portion of something considered as facing in a particular direction <the upper side of a sphere>".

Vaverka et al does not teach a solar module having a front side composed of transparent polyurethane. The front side of the Vaverka et al solar module is composed of glass.

The teachings of Vaverka et al do not therefore anticipate Applicants' claimed invention.

Withdrawal of this rejection is therefore requested.

Claims 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vaverka et al (U.S. Patent 5,667,595) as applied to Claim 1 above and further in view of Shiomi et al (U.S. Patent 6,245,987). Applicants respectfully traverse this rejection.

As has already been discussed, Vaverka et al requires a front side which is composed of glass and **not** the transparent polyurethane required in Applicants' claimed invention. Vaverka et al does not contain any teaching which would lead

one skilled in the art to modify the disclosed solar modules to replace the glass front plate with any other material much less the transparent polyurethane required in the present invention.

Shiomi et al discloses solar cell modules but does **not** teach or suggest a solar cell module having a front side composed of transparent polyurethane.

The teachings of Shiomi et al and Vaverka et al can not therefore be combined in any manner which would lead one skilled in the art to a solar module having a front side composed of transparent polyurethane. The combined teachings of Vaverka et al and Shiomi et al do not therefore support the rejection of Applicants' claimed invention which requires a front side composed of transparent polyurethane.

Withdrawal of this rejection is therefore requested.

Claims 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vaverka et al (U.S. Patent 5,667,595) as applied to Claim 1. Applicants respectfully traverse this rejection.

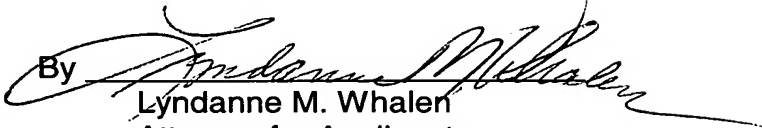
As has already been discussed, Vaverka et al does not disclose a solar module having a front side composed of transparent polyurethane as is required in the present invention. Nor does Vaverka et al suggest that the glass plate required in the reference solar modules could be replaced with any other material, much less transparent polyurethane.

The teachings of Vaverka et al can not therefore be construed in any manner which would render obvious Applicants' invention requiring a transparent polyurethane front side.

Withdrawal of this rejection is therefore requested.

In view of the above remarks, reconsideration and allowance of Claims 1-8 are respectfully requested.

Respectfully submitted,

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# New Collegiate Dictionary

*A Merriam-Webster®*

G. & C. MERRIAM COMPANY  
Springfield, Massachusetts, U.S.A.

vi 1: HISS 2: to utter an initial sibilant : prefix an  
vr 1: HISS 2: to pronounce with an initial sibilant : prefix an  
sibilant sound to — **sib-i-la-tion** \sib-ə-'lā-shən\ *n*

**sib-yl** \ˈsīb-əl\ *n.*, often cap [ME *sibile*, *sybylle*, fr. MF & L; MF *sybilis*, *sybyla*; see *SIB*] 1: any of several prophetesses usu-

\sə-'bil-ik\ *adj* — **sib-yl-line** \sib-ə-'līn, -lēn\ *adj*  
 1a:ic \(')sɪk\ *chiefly Scot var of SUCH*

<sup>3</sup>**sic** /'sɪk, 'sɛk/ *adv* [L, so, thus — more at so]: intentionally s

**sic-ca-tive** \ˈsɪk-ət-iv/ *n* [LL *siccatus* making dry, pp. of *siccare* to dry, fr. *siccus* dry — more at **SACK**]: **DRIER 2**  
**sick** \ˈsɪk/ *adj* [ME *sek*, *sik*, fr. OE *sēoc*; akin to OHG *sioh* sick, fr. *siohan* to be afflicted with disease or ill health]

pay> <a ~ ward> b: ~~ward~~ 2: ~~ward~~ 3: ~~ward~~ 4: ~~ward~~ 5: ~~ward~~ 6: ~~ward~~ 7: ~~ward~~ 8: ~~ward~~ 9: ~~ward~~ 10: ~~ward~~ 11: ~~ward~~ 12: ~~ward~~ 13: ~~ward~~ 14: ~~ward~~ 15: ~~ward~~ 16: ~~ward~~ 17: ~~ward~~ 18: ~~ward~~ 19: ~~ward~~ 20: ~~ward~~ 21: ~~ward~~ 22: ~~ward~~ 23: ~~ward~~ 24: ~~ward~~ 25: ~~ward~~ 26: ~~ward~~ 27: ~~ward~~ 28: ~~ward~~ 29: ~~ward~~ 30: ~~ward~~ 31: ~~ward~~ 32: ~~ward~~ 33: ~~ward~~ 34: ~~ward~~ 35: ~~ward~~ 36: ~~ward~~ 37: ~~ward~~ 38: ~~ward~~ 39: ~~ward~~ 40: ~~ward~~ 41: ~~ward~~ 42: ~~ward~~ 43: ~~ward~~ 44: ~~ward~~ 45: ~~ward~~ 46: ~~ward~~ 47: ~~ward~~ 48: ~~ward~~ 49: ~~ward~~ 50: ~~ward~~ 51: ~~ward~~ 52: ~~ward~~ 53: ~~ward~~ 54: ~~ward~~ 55: ~~ward~~ 56: ~~ward~~ 57: ~~ward~~ 58: ~~ward~~ 59: ~~ward~~ 60: ~~ward~~ 61: ~~ward~~ 62: ~~ward~~ 63: ~~ward~~ 64: ~~ward~~ 65: ~~ward~~ 66: ~~ward~~ 67: ~~ward~~ 68: ~~ward~~ 69: ~~ward~~ 70: ~~ward~~ 71: ~~ward~~ 72: ~~ward~~ 73: ~~ward~~ 74: ~~ward~~ 75: ~~ward~~ 76: ~~ward~~ 77: ~~ward~~ 78: ~~ward~~ 79: ~~ward~~ 80: ~~ward~~ 81: ~~ward~~ 82: ~~ward~~ 83: ~~ward~~ 84: ~~ward~~ 85: ~~ward~~ 86: ~~ward~~ 87: ~~ward~~ 88: ~~ward~~ 89: ~~ward~~ 90: ~~ward~~ 91: ~~ward~~ 92: ~~ward~~ 93: ~~ward~~ 94: ~~ward~~ 95: ~~ward~~ 96: ~~ward~~ 97: ~~ward~~ 98: ~~ward~~ 99: ~~ward~~ 100: ~~ward~~ 101: ~~ward~~ 102: ~~ward~~ 103: ~~ward~~ 104: ~~ward~~ 105: ~~ward~~ 106: ~~ward~~ 107: ~~ward~~ 108: ~~ward~~ 109: ~~ward~~ 110: ~~ward~~ 111: ~~ward~~ 112: ~~ward~~ 113: ~~ward~~ 114: ~~ward~~ 115: ~~ward~~ 116: ~~ward~~ 117: ~~ward~~ 118: ~~ward~~ 119: ~~ward~~ 120: ~~ward~~ 121: ~~ward~~ 122: ~~ward~~ 123: ~~ward~~ 124: ~~ward~~ 125: ~~ward~~ 126: ~~ward~~ 127: ~~ward~~ 128: ~~ward~~ 129: ~~ward~~ 130: ~~ward~~ 131: ~~ward~~ 132: ~~ward~~ 133: ~~ward~~ 134: ~~ward~~ 135: ~~ward~~ 136: ~~ward~~ 137: ~~ward~~ 138: ~~ward~~ 139: ~~ward~~ 140: ~~ward~~ 141: ~~ward~~ 142: ~~ward~~ 143: ~~ward~~ 144: ~~ward~~ 145: ~~ward~~ 146: ~~ward~~ 147: ~~ward~~ 148: ~~ward~~ 149: ~~ward~~ 150: ~~ward~~ 151: ~~ward~~ 152: ~~ward~~ 153: ~~ward~~ 154: ~~ward~~ 155: ~~ward~~ 156: ~~ward~~ 157: ~~ward~~ 158: ~~ward~~ 159: ~~ward~~ 160: ~~ward~~ 161: ~~ward~~ 162: ~~ward~~ 163: ~~ward~~ 164: ~~ward~~ 165: ~~ward~~ 166: ~~ward~~ 167: ~~ward~~ 168: ~~ward~~ 169: ~~ward~~ 170: ~~ward~~ 171: ~~ward~~ 172: ~~ward~~ 173: ~~ward~~ 174: ~~ward~~ 175: ~~ward~~ 176: ~~ward~~ 177: ~~ward~~ 178: ~~ward~~ 179: ~~ward~~ 180: ~~ward~~ 181: ~~ward~~ 182: ~~ward~~ 183: ~~ward~~ 184: ~~ward~~ 185: ~~ward~~ 186: ~~ward~~ 187: ~~ward~~ 188: ~~ward~~ 189: ~~ward~~ 190: ~~ward~~ 191: ~~ward~~ 192: ~~ward~~ 193: ~~ward~~ 194: ~~ward~~ 195: ~~ward~~ 196: ~~ward~~ 197: ~~ward~~ 198: ~~ward~~ 199: ~~ward~~ 200: ~~ward~~ 201: ~~ward~~ 202: ~~ward~~ 203: ~~ward~~ 204: ~~ward~~ 205: ~~ward~~ 206: ~~ward~~ 207: ~~ward~~ 208: ~~ward~~ 209: ~~ward~~ 210: ~~ward~~ 211: ~~ward~~ 212: ~~ward~~ 213: ~~ward~~ 214: ~~ward~~ 215: ~~ward~~ 216: ~~ward~~ 217: ~~ward~~ 218: ~~ward~~ 219: ~~ward~~ 220: ~~ward~~ 221: ~~ward~~ 222: ~~ward~~ 223: ~~ward~~ 224: ~~ward~~ 225: ~~ward~~ 226: ~~ward~~ 227: ~~ward~~ 228: ~~ward~~ 229: ~~ward~~ 230: ~~ward~~ 231: ~~ward~~ 232: ~~ward~~ 233: ~~ward~~ 234: ~~ward~~ 235: ~~ward~~ 236: ~~ward~~ 237: ~~ward~~ 238: ~~ward~~ 239: ~~ward~~ 240: ~~ward~~ 241: ~~ward~~ 242: ~~ward~~ 243: ~~ward~~ 244: ~~ward~~ 245: ~~ward~~ 246: ~~ward~~ 247: ~~ward~~ 248: ~~ward~~ 249: ~~ward~~ 250: ~~ward~~ 251: ~~ward~~ 252: ~~ward~~ 253: ~~ward~~ 254: ~~ward~~ 255: ~~ward~~ 256: ~~ward~~ 257: ~~ward~~ 258: ~~ward~~ 259: ~~ward~~ 260: ~~ward~~ 261: ~~ward~~ 262: ~~ward~~ 263: ~~ward~~ 264: ~~ward~~ 265: ~~ward~~ 266: ~~ward~~ 267: ~~ward~~ 268: ~~ward~~ 269: ~~ward~~ 270: ~~ward~~ 271: ~~ward~~ 272: ~~ward~~ 273: ~~ward~~ 274: ~~ward~~ 275: ~~ward~~ 276: ~~ward~~ 277: ~~ward~~ 278: ~~ward~~ 279: ~~ward~~ 280: ~~ward~~ 281: ~~ward~~ 282: ~~ward~~ 283: ~~ward~~ 284: ~~ward~~ 285: ~~ward~~ 286: ~~ward~~ 287: ~~ward~~ 288: ~~ward~~ 289: ~~ward~~ 290: ~~ward~~ 291: ~~ward~~ 292: ~~ward~~ 293: ~~ward~~ 294: ~~ward~~ 295: ~~ward~~ 296: ~~ward~~ 297: ~~ward~~ 298: ~~ward~~ 299: ~~ward~~ 300: ~~ward~~ 301: ~~ward~~ 302: ~~ward~~ 303: ~~ward~~ 304: ~~ward~~ 305: ~~ward~~ 306: ~~ward~~ 307: ~~ward~~ 308: ~~ward~~ 309: ~~ward~~ 310: ~~ward~~ 311: ~~ward~~ 312: ~~ward~~ 313: ~~ward~~ 314: ~~ward~~ 315: ~~ward~~ 316: ~~ward~~ 317: ~~ward~~ 318: ~~ward~~ 319: ~~ward~~ 320: ~~ward~~ 321: ~~ward~~ 322: ~~ward~~ 323: ~~ward~~ 324: ~~ward~~ 325: ~~ward~~ 326: ~~ward~~ 327: ~~ward~~ 328: ~~ward~~ 329: ~~ward~~ 330: ~~ward~~ 331: ~~ward~~ 332: ~~ward~~ 333: ~~ward~~ 334: ~~ward~~ 335: ~~ward~~ 336: ~~ward~~ 337: ~~ward~~ 338: ~~ward~~ 339: ~~ward~~ 340: ~~ward~~ 341: ~~ward~~ 342: ~~ward~~ 343: ~~ward~~ 344: ~~ward~~ 345: ~~ward~~ 346: ~~ward~~ 347: ~~ward~~ 348: ~~ward~~ 349: ~~ward~~ 350:

emotionally unsound or disordered : MORBID <~ thoughts>  
: MACABRE, SADISTIC <~ jokes> 5: lacking vigor : SICKLY; as  
in the contest> b: declining

**sick and tired** *adj*: thoroughly fatigued or bored

sick call n 1: a usu. daily formation  
as sick to the medical officer 2: the period during which sick  
is held  
sickened v  
sick-en-ing \-(ə-)nɪŋ\ vt 1

**sick-en-er** \ 'sik(-ə)-nər \ *n* : something that sickens, e.g. overwhelming  
**sick-en-ing** \ -nɪŋ \ *adj* : causing sickness : NAUSEATING <

*adv* : chiefly Scot : in a secure manner : SAFE

**sick-ly** *'sɪk-əl* *adv* — **sick-ish-ly** *adv* — **sick-ish-ness** *n*  
**sick-le** *'sɪk-əl* *n* [ME *sikel*, fr. OE *sicol*; akin to OHG *sika* 'urine']

: the cutting mechanism (as of a reaper, combine, or mowing machine) consisting of a bar with a series of cutting elements 2 constellation consisting of six stars in the constellation Leo

<sup>3</sup>sickle *vb* sick·led, sick·ling (sik (ə) ling)  
1 : to cut (something) with a sickle 2 : to form (a red blood cell) into a crescent  
3 : to form into a crescent <the ability of red blood cells to  
bend from work permitted because

**sick-le-bill** \sɪk-əl-bɪl/ *n* : any of various birds (as a sea thrasher) with a strongly curved bill

sickle-cell trait  $n$ : an inherited blood condition in which

sickle feather *n*: one of the long curved tail feathers of a cock illustration

2: produced by or associated with sickness <a ~ complex ~ appetite> 3: producing or tending to produce disease



c : lacking in vigor : WEAK <a ~ plant> <~ beer> b : MAWKISH —  
: tending to produce nausea <a ~ odor>

weakened, or unsound condition (as of society or an institution) 2: a specific disease 3: NAUSEA, QUEASINESS  
sick pay *n*: salary or wages paid to an employee while on sick leave

**sic pas-sim** \ˈsɪk-ˈpäs-əm, ˈsɛk-ˈpäs-ɪm\ *adv* [L]: so throughout -  
used of a word or idea to be found throughout a book or a writer

both Hebrew and Aramaic prayers used in the Ashkenazic liturgy

plane (2): a cut of meat including that about the ribs of one half of the body — used chiefly of smoked pork products c: o

4: an outer portion of something considered as facing in a particular direction <the upper ~ of a sphere> 5: a slope or declivity of a hill or ridge 6 a: a bounding line of a geometrical figure <each side of a triangle> b: a line that delimit a solid;

one <he never left her ~> 8 : the attitude or activity of  
person or group with respect to another : PART 9 : a body  
of contestants (victory for neither ~) 10 : a line

position viewed as opposite to or contrasted with another <two  
to every question> 13 Brit: sideways spin imparted to a bill

**side** *adj* 1 **a:** of or relating to the side **b:** situated on the side **c:** of or relating to the side **d:** directed toward or from the side <~ thru ~ window> 2 **a:** directed toward or from the side <~ thru ~ window> 2 **a:** directed toward or from the side <~ thru ~ window>

**side** *vb* **sided; siding** *v* 1: to agree  
side by side with 3: to set or put aside: clear away <~ dis-  
4: to furnish with sides or siding <~ a house> ~ *vi*: to  
be sided with the rebels>

**side-arm** \ˈsɪd-ɑrm\ *adj*: of, relating to, or constituting a baseball pitching style in which the arm is not raised above the shoulder when the ball is thrown with a sideways sweep of the arm

**side-band** \-,band\ *n*: the band of frequencies (as of radio waves) on either side of the carrier frequency produced by modulation. *side-band* is provided at each side of a typeset.

side-board (sīd' bōrd) *n* furniture having compartments and shelves for holding articles  
table service  
sideburns (sīd' bənz) *n* pl [anagram of burnsides] 1

**side by side** *adv* 1 : beside one another <walked side by side>  
2 : in the same place, time, or circumstance <side by side for many years> — **side-by-side**

**sid-ed** \ˈsɪd-əd\ *adj*: having sides often of a specified num  
 <one-sided> <glass-sided> — **sid-ed-ness** *n*

**side-dress** *vt*: to place plant nutrients on or in the soil near the roots of (a growing crop) often by means of a cultivator

**side effect** *n*: a secondary and usu. adverse effect (as of a drug) — called also *side reaction*  
*<toxic side effects>* — called also *side reaction*  
*<side glance(s)>* *n*: a glance directed to the

back —      a back      ā bake      ä c

j joke    ŋ sing    ɔ flow    ɔ flaw    ɔi con  
ü loot    ü foot    y yet    yü few    yü furious    zh

24